

Amendments to the Specification:

Please replace paragraph [0046] with the following amended paragraph:

~~Fig. 16 is an annotated sequence of an EST comprising a novel gene detected by the gene detection system of the present invention~~a simplified diagram describing a novel bioinformatically detected group of regulatory genes, referred to here as Genomic Record (GR) genes, each of which encodes an "operon-like" cluster of novel miRNA-like genes, which in turn modulates expression of a plurality of target genes;

Please replace paragraph [0047] with the following amended paragraph:

~~Figs. 17A and 17B are pictures of laboratory results, which when taken together demonstrate laboratory confirmation of expression of the bioinformatically detected novel gene of Fig. 16~~is a simplified diagram illustrating a mode by which genes of a novel group of operon-like genes of the present invention, modulate expression of other such genes, in a cascading manner;

Please replace paragraph [0048] with the following amended paragraph:

~~Fig. 18 is a block diagram illustrating an overview of a methodology for finding novel genes and operons of the present invention, and their respective functions;~~

Please replace paragraph [0049] with the following amended paragraph:

~~Fig. 19 is a block diagram illustrating different utilities of genes of a novel group of genes, and operons of a novel group of operons, both of the present invention;~~

Please replace paragraph [0050] with the following amended paragraph:

~~Fig. 20~~Figs. 20A and 20B are simplified diagrams, which when taken together illustrate a mode of gene therapy applicable to genes of the novel group of genes of the present invention;

Please replace paragraph [0051] with the following amended paragraph:

~~Figs. 21A through 28020D are schematic diagrams illustrating sequences, functions and utilities of 28,000 specific genes of the novel group of genes of the present invention, detected using the bioinformatic gene detection system described hereinabove with reference to Figs. 8 through 15~~Fig. 21A is an annotated sequence of EST72223 comprising novel gene GAM24 detected by the gene detection system of the present invention;

Please replace paragraph [0052] with the following amended paragraph:

~~and Figs. 28021A through 3121B are schematic diagrams illustrating sequences, functions and utilities of 3,000 specific genes of a second group of novel genes of the present invention, detected using the bioinformatic gene detection system described hereinabove with reference to Figs. 8 through 15.~~ Figs. 21B and 21C are pictures of laboratory results, which when taken together demonstrate laboratory confirmation of expression of the bioinformatically detected novel gene GAM24 of Fig. 21A;

Please add the following paragraphs after paragraph [0052]:

Fig. 21D provides pictures of laboratory results, which when taken together demonstrate further laboratory confirmation of expression of the bioinformatically detected novel gene GAM24 of Fig. 21A;

Fig. 22A is an annotated sequence of an EST7929020 comprising novel genes GAM23 and GAM25 detected by the gene detection system of the present invention;

Fig. 22B is a picture of laboratory results, which confirm expression of bioinformatically detected novel genes GAM23 and GAM25 of Fig. 22A;

Fig. 22C is a picture of laboratory results, which confirm endogenous expression of bioinformatically detected novel gene GAM25 of Fig. 22A;

Fig. 23A is an annotated sequence of an EST1388749 comprising novel gene GAM26 detected by the gene detection system of the present invention;

Figs. 23B is a picture of laboratory results, which confirm expression of the bioinformatically detected novel gene GAM26 of Fig. 23A;

Please replace paragraph [8047] with the following amended paragraph:

Reference is now made to Fig. 4116, which is a simplified diagram describing each of a plurality of novel bioinformatically detected regulatory genes, referred to here as Genomic Record_(GR) genes, which encodes an operon-like cluster of novel micro RNA-like genes, each of which in turn modulates expression of at least one target gene, the function and utility of which at least one target gene is known in the art.